

We claim:

1. In a connector assembly having a housing, a first connector mounted on the housing and adapted for mating with a second connector, both connectors having electrical conductors for communicating electrically with each other, the improvement wherein the assembly comprises:

a yoke pivotally coupled to the housing, the yoke being pivotal to an open position and to a closed position, and the yoke being engagable with the second connector to move the second connector into full mating engagement with the first connector as the yoke is pivoted to its closed position; and

a latching device coupled to the yoke, the latching device being releasably engageable with the housing to releasably hold the yoke in its closed position, and the latching device being operable to unlatch and permit the yoke to be pivoted to its open position and allow the second connector to be disconnected from the first connector if sufficient tension is applied to the second connector in a direction to pull the second connector away from the first connector.

2. The connector assembly of claim 1, wherein:

the yoke comprises a base member and a pair of spaced-apart limbs projecting from the base member, the limbs being engagable with a shoulder formed on the second connector.

3. The connector assembly of claim 1, wherein:

the yoke further comprises a handle extending from an end of one of the limbs.

4. The connector assembly of claim 1, wherein the latching device comprises:

a latch member on the housing; and

a lever pivotally mounted on the yoke, the lever having an arm with a finger projecting therefrom, the finger being releasably engageable with said latch member.

5. The connector assembly of claim 1, further comprising:

a lever spring coupled between the lever and the yoke and biased to urge the lever to a latched position wherein the finger engages the latch member.

6. The connector assembly of claim 4, wherein the latch member

comprises:

an archway projecting from the housing, the archway defining an inner surface, a portion of said inner surface defining a latch surface which is engageable with the finger.

7. The connector assembly of claim 1, further comprising:

a cover pivotal on the housing to a closed position covering the first connector and pivotal to an open position exposing the first connector, the yoke engaging the cover and pivoting the cover to the cover's open position as the yoke is pivoted to its open position.

8. The connector assembly of claim 1, further comprising:

a cover spring coupled between the cover and the housing and biased to urge the cover to its closed position.

9. In a connector assembly having a housing, a first connector part mounted on the housing, and a second connector part for releasably mating with the first part, both parts having electrical conductors for communicating electrically with each other, the improvement wherein the assembly comprises:

a yoke pivotally coupled to the housing, the yoke having a pair of spaced-apart limbs projecting from a base member, and a handle extending from an end of one of the limbs, the yoke being pivotal from an open position and towards the first connector part to a mated position, the yoke being engageable with the second connector part to move the second connector part into full mating engagement with the first connector part as the yoke is pivoted to its mated position;

an archway projecting from a surface of the housing, the archway having an inner surface surrounding an opening, a portion of said inner surface forming a latch surface;

a latching lever pivotally mounted on a limb of the yoke, the lever having first and second arms projecting away from a hub, the first arm having a finger projecting therefrom, the finger being releasably engageable with said latch surface, the lever being pivotal from a latching position wherein the finger is received by the archway and engages said latch surface, to an unlatched position wherein the finger is removed from the archway and disengaged from said latch surface, the lever holding

the yoke in its mated position when the lever is in its latched position, and the lever permitting the yoke to be pivoted away from the first connector part when the lever is in its unlatched position.

10. The connector assembly of claim 9, further comprising:

a yoke spring coupled between the yoke and the housing and biased to urge the yoke to its mated position.

11. The connector assembly of claim 9, further comprising:

a lever spring coupled between the lever and the yoke and biased to urge the lever to its latched position.

12. The connector assembly of claim 9, wherein:

when a decoupling force is applied to the second connector part, the second connector part transmitting at least a portion of said force to the yoke, and the yoke transmitting a portion of said force to the lever and the finger, the finger sliding away from the latching surface if the decoupling force exceeds a predetermined break-away force.

13. In a connector assembly having a housing, a first connector mounted on the housing and adapted for mating with a second connector, both connectors having electrical conductors for communicating electrically with each other, the improvement wherein the assembly comprises:

a cover pivotal on the housing to a closed position covering the first connector and to an open position exposing the first connector; and

a yoke pivotally coupled to the housing, the yoke being pivotal to an open position and to a closed position, the yoke engaging the cover and pivoting the cover to the cover's open position as the yoke is pivoted to its open position, and the yoke being engagable with the second connector to move the second connector into full mating engagement with the first connector as the yoke is pivoted to its closed position.

14. The connector assembly of claim 13, wherein:

the yoke comprises a base member and a pair of spaced-apart limbs projecting from the base member.

15. The connector assembly of claim 13, wherein:

the yoke further comprises a handle extending from an end of one of the limbs.

16. The connector assembly of claim 13, further comprising:  
a latching device mounted on the yoke, the latching device being releasably engageable with the housing to releasably hold the yoke in its closed position.

17. The connector assembly of claim 16, wherein:  
if sufficient tension is applied to the second connector in a direction to pull the second connector away from the first connector, the second connector engages the yoke and unlatches the latching device to permit the yoke to be pivoted to its open position and allow said tension to disconnect the second connector from the first connector.

18. The connector assembly of claim 16, wherein the latching device comprises:

a latch member on the housing; and  
a lever pivotally mounted on the yoke, the lever having a hub and first and second arms projecting away from the hub, the first arm having a finger projecting therefrom, the finger being releasably engageable with said latch member.

19. The connector assembly of claim 18, wherein the latching device further comprises:

a spring coupled between the lever and the yoke and biased to urge the finger into engagement with the latch member.

20. The connector assembly of claim 19, wherein:  
if sufficient tension is applied to the second connector in a direction to pull the second connector away from the first connector, the second connector engages the yoke and disengages the finger from the latch member to permit the yoke to be pivoted to its open position and allow said tension to disconnect the second connector from the first connector.